Mad Minute #1

Algebra 091 (Bob Lynn)

**Primary Concept:**

Factoring Quadratic Expressions

**Purpose:**

Students will demonstrate their ability to identify factoring methods for different types of Quadratic Expressions.

**Supplies:**

paper, pencil, activity sheet, room, normal setting, students working individually

**Vocabulary:**

factoring, factorization, quadratic expression, terms, coefficients, exponents, difference of 2 squares, perfect squared trinomial or binomial squared, trinomials factoring, greatest common factor (G.C.F.), and factoring by grouping.

**Prompts and time considered:**

Prompt Give basic instructions

5 minutes Students working individually; given 10 problems on activity sheet (from easy to hard). After instruction, students have 1 minute to identify and align with type of factoring. (See activity sheet)

Prompt # 1 You will work alone and answer as many of the 10 questions on the activity sheet

5 minutes as possible.

Prompt #2 Hand in to instructor (name required), no grade given.

Prompt #3 Discussions on problems (next class day) – hard or easy?

5 minutes

Prompt #4 Students work in pairs on the hard problem to identify the type of factoring then

5 minutes solve the problem and prepare to present to the class. Take the hardest problem to factor. Find the method and complete the factorization (do in groups of two).

Total time: 20 minutes

Note: Good factoring methods for Quadratic Expressions will get solutions to Quadratic Equations in the next lesson.

Activity: Quadratic Expressions

You have 1 minute to identify the type of factoring method for each polynomial. If it is not factorable in the system of real numbers choose (Prime). Draw a line from the expression to the correct method for factoring.

1. u² - 18u +81 binomial ^ ² or perfect square factoring
2. 2ac + 4ad +bc +2bd factor by grouping
3. 4x²y² + 4xy² + y² difference of 2 squares
4. 25x² - 16y² product sum method – general trinomial factoring
5. 39 + 10n – n² Greatest common factor
6. 4x² +4x + 1 Prime
7. 
8. 36x² - 25y²
9. x² +2x + 1

10) 2x² + 5x - 3